



## M/V Pacific Victory

- ▶ **Bollard Pull** 110-126 tonnes
- ▶ **Brake Horsepower** 8807 BHP
- ▶ **Clear Deck Space** 425 m<sup>2</sup>
- ▶ **Winch Line Pull** 255 tonnes

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|------------------|----------------|------------------|------------|
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### General Information

|                 |   |
|-----------------|---|
| Built:          | P.T. Nanindah, Batam, September 2008  |
| Flag:           | Singapore   |
| Call Sign:      | 9V6793  |
| IMO No.:        | 9361677   |
| Classification: | DNV-GL +1A Fire fighter(I) Offshore service vessel(Anchor handling, Towing) DPS(2) E0 |

### Dimensions

|                        |              |
|------------------------|--------------|
| Length, overall:       | 66.0 metres  |
| Length, BP:            | 60.07 metres |
| Breadth, moulded:      | 16.0 metres  |
| Depth, main deck:      | 7.3 metres   |
| Design draft:          | 6.2 metres   |
| Maximum draft midship: | 6.2 metres   |
| GT:                    | 2147         |
| NT:                    | 644          |

### Capacities

|                                    |  |
|------------------------------------|--|
| Deadweight (maximum):              | 2302 tonnes  |
| Clear Deck Area:                   | 365 m2 due to FRDC installation  |
| Deck Strength:                     | 5t/m2  |
| Deck Cargo:                        | 870 tonnes   |
| Fuel:                              | 807.54 m3 (dedicated)<br>1595.31 m3 (including the combined use Mud/Brine tanks and the combined use Rig Chain locker)                       |
| Potable Water:                     | 454.75 m3  |
| Ballast Water / Drill Water:       | 668.67 m3  |
| Brine / DMA / Glycol / Liquid Mud: | 128 m3 (in 2 dedicated tanks)<br>593 m3 (including the combined use Mud tanks - s.g. of 2.5)   |
| Liquid Mud:                        | 465 m3 (in 6 dedicated tanks)<br>593 m3 (including the combined use Brine tanks - s.g. of 2.5)   |
| Special Liquids:                   | Methanol Tank capacity: 2 x 51.6 m3 / 324.6 bbls   |
| Dry Bulk:                          | 185 m3 (approximately 6,600 cubic feet) total capacity in 4 tanks  |
| Ship's Stores:                     | Freezer (-25 degrees Celsius) - approximately 12 m3<br>Cooler (+4 degrees Celsius) - approximately 12 m3<br>Dry Stores - approximately 26 m3 |

### Machinery

|                |   |
|----------------|---|
| Main Engines:  | 2 x 3285 kW = 6570 kW (8807 BHP)  |
| Propulsion:    | 2 x MAN B&W Alpha CPP Propellers in MAN AHT Kort nozzles  |
| Bow Thrusters: | 2 x 600 kW = 1200 kW (1608 BHP) Brunvoll Tunnel Thrusters, approximately 9.0 tonnes thrust each |

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| Stern Thrusters:      | 2 x 600 kW = 1200 kW (1608 BHP) Brunvoll Tunnel Thrusters, approximately 9.0 tonnes thrust each |
| Shaft Generators:     | 2 x Leroy Somer shaft generators, 1280 kW, 1600 kVA each, 440V, 60Hz                            |
| Auxiliary Generators: | 1 x Caterpillar 3406C Diesel Generator, 345 kW, 440V, 60Hz                                      |
| Emergency Generators: | 1 x air cooled Caterpillar 3406C Diesel Generator, 345 kW, 440V, 60Hz                           |

### Towing and Anchor Handling

|                           |  |
|---------------------------|--|
| Bollard Pull:             | 121.24 MT @ 100% MCR   |
| Main Winch:               | 1 x Hydrakraft 250 tonne variable pressure waterfall winch   |
| Load Capacity:            | Towing and Anchor Handling Drums:<br>Pulling Force - 1st layer - 255 tonnes, mid layer - 165 tonnes, outer layer - 122 tonnes (low speed)<br>Pulling Speed - 1st layer - 11.4 m/min, mid layer - 17.6 m/min, outer layer - 23.8 m/min (low speed)<br>Pulling force - 1st layer - 127 tonnes, mid layer - 82 tonnes, outer layer - 61 tonnes (high speed)<br>Pulling speed - 1st layer - 22.8 m/min, mid layer - 35.2 m/min, outer layer - 47.6 m/min (high speed)<br>The Anchor Handling Drum and Towing Drum are capable of 250 tonnes pull on 1st layer simultaneously |
| Brake Capacity:           | Brake Force:<br>1st layer - 320 tonnes<br>mid layer - 207 tonnes<br>outer layer - 153 tonnes   |
| Tow Drum Wire Capacity:   | 1500 m x 71 mm diameter  |
| Work Drum Capacity:       | 1500 m x 71 mm diameter  |
| Chain Gypsy Cable Lifter: | 1 x 76 mm, 1 x 84 mm mounted on each side of anchor handling drum  |
| Rig Chain Locker:         | 195 m <sup>3</sup> volume 1350 m @ 84 mm, 1650 m @ 76 mm   |
| Stern Roller:             | Rolls Royce, SWL 350 tonnes, 5.5 m x 2.0 m diameter  |
| Tow Pins / Guide Pins:    | 1 pair of retractable Karmoy guide pins with horizontal locking tops   |
| Wire Chain Stopper:       | 2 x retractable Karm forks, SWL 300 tonnes for wire/chain up to 102 mm   |
| Spare Reel Capacity:      | 1 x Hydrakraft variable pressure, 20 tonnes pull on 1st layer, 1400 m x 71 mm diameter   |
| Pennant Storage Reels:    | 2 x Hydrakraft variable pressure, 20 tonnes pull on 1st layer, 1000 m x 76 mm diameter   |

### Deck Machinery

|                      |  |
|----------------------|--|
| Tuggers:             | 2 x 10 tonnes Hydrakraft   |
| Capstans:            | 2 x 16 tonne (warping head) / 10 tonne (wire drum) Hydrakraft                                    |
| Windlass:            | 1 x 10 tonne Hydrakraft, 2100 kg anchors with 440 m x 36 mm chain each side, plus 1 spare anchor |
| Bow Mooring:         | 2 x mooring drums, capacity of 200 m x 56 mm rope each   |
| Smit Towing Bracket: | 1 x 102 tonnes SWL located on the Forecastle   |
| Crane Capacity:      | TTS, 5 tonnes at 13 m radius   |

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### Electronics

|                          |  |
|--------------------------|--|
| Main Radar:              | 1 x Furuno FAR-2117 X Band ARPA Radar with 21" LCD display   |
| Auxiliary Radar:         | 1 x Furuno FAR-2137S S Band ARPA Radar with 21" LCD display  |
| Auto Pilot:              | 1 x Tokimec PR 6000 Series   |
| Gyro Compass:            | 3 x Tokimec TG8000 with repeaters in wheelhouse and steering gear room   |
| Magnetic Compass:        | 1 x Cassen & Plath REFLECTA 1<br>1 x Cassen & Plath (Spare in Instrument room)   |
| Echo Sounder:            | 1 x Skipper GDS102, Dual Frequency, 1500 m water depth   |
| DGPS :                   | 1 x Furuno GP-90, IMO approved for navigation<br>2 x Veripos LD5   |
| Anemometer :             | 3 x Gill ultrasonic unit   |
| Speed Log:               | 1 x Furuno DS-80 Doppler Speed log   |
| Communications:          | 1 x Furuno G.M.D.S.S. (Global Maritime Distress & Safety System) Area A3 set<br>1 x Furuno FS-2575c (250W) MH/HF Radio<br>1 x Furuno FM-8900S (25W) VHF DSC fwd set<br>1 x Furuno FM-8800D (25W) VHF DSC<br>1 x Furuno FELCOM-15 Inmarsat-C<br>1 x Furuno FELCOM-15 Inmarsat-C/SSAS<br>1 x Furuno NX-700B Navtex Receiver<br>3 x McMurdo Portable GMDSS VHF Radios<br>1 x Kannad Marine SafeLink Sportpro+ GPS<br>2 x McMurdo SART |
| Navtex Receiver:         | Furuno NX-700  |
| Weather Fax:             | 1 x Furuno DFAX-207 model  |
| Satellite Communication: | 2 x Furuno FELCOM-15 Inmarsat-C and 1 with SSAS  |
| Datalink :               | Inmarsat V-Sat   |
| AIS:                     | 1 x Furuno FA-150 model  |
| Satellite Navigation:    | Furuno GP 150 GPS  |
| VHF:                     | 1 x Furuno FM-8800S (25 W) VHF DSC<br>1 x Furuno FM-8900S DSC  |
| VRU:                     | DMS RP30 x2  |
| BNWAS:                   | MARTEK NAVGARD   |

### Discharge Pumps

|                            |  |
|----------------------------|--|
| Fuel Oil:                  | 1 x 100 m <sup>3</sup> /hr - 7.0 bar           |
| Potable Water:             | 1 x 150 m <sup>3</sup> /hr - 7.0 bar           |
| Drill Water:               | 1 x 150 m <sup>3</sup> /hr - 7.0 bar           |
| Liquid Mud:                | 1 x 75 m <sup>3</sup> /hr - 18.0 bar           |
| Brine / Mud:               | 1 x 75 m <sup>3</sup> /hr - 18.0 bar           |
| Dry Bulk:                  | 80 cbm/hr - 5.6 bar (2 compressors)            |
| Cargo Flow Meters :        | Fuel Oil and Potable Water                     |
| Special Liquids:           | Methanol                                       |
| Special liquid (Methanol): | 70 m <sup>3</sup> /hour at 90% capacity / 7bar |



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|--------------------|--|
| Nitrogen System:   | Air Products Nitrogen Generator:<br>Model NC1.1-1605P-WKX-089-950<br>Plant capacity: 2 x 94 sm <sup>3</sup> /h @ 95% N <sub>2</sub> . ABS Approved.<br>Year Built: 2011  |
| Hose Connections : | Fuel - 4" Camlock<br>Potable Water - 4 " Camlock<br>Drill Water - 4" Camlock<br>Mud - 5" Camlock<br>Brine - 5" Camlock<br>Dry Bulk - 5" Camlock<br>Methanol - 3" TODO<br>Adapters 5" to 4" reducer, 4" to 3" reducer<br>Methanol 3" Avery Hardol |

### Performance

|                           |  |
|---------------------------|--|
| Speed / Fuel Consumption: | At 100% MCR, approximate consumption is 34 tonnes / day<br>Economical speed 10-12 knots, approximate consumption is 12 tonnes / day<br>Idle at sea: approximate consumption 4 tonnes / day<br>Idle in port: approximate consumption 0.8 tonnes / day |
|---------------------------|--|

### Dynamic Positioning

|                    |   |
|--------------------|---|
| Type:              | Converteam ADP02 - Duplex DP2 System - Two interfaced ADP21 workstations  |
| Reference Systems: | 1 x Cyscan laser complete with 3 reflectors<br>2 x Veriopos LD5<br>1 x USBL HPR<br>2 x Vertical Reference Systems   |
| Control Modes:     | Joystick manual heading, Joystick auto heading, Dynamic Positioning, Model Control (dead reckoning), DP minimum power, Ship follow, Auto track, Auto Pilot, Auto Sail, ROV follow, Simulation (for training purposes) |
| Joystick:          | Converteam independent joystick - integrated to main propulsion, rudders, side thrusters and interfaced to gyro compass   |

### External Fire Fighting

|                   |   |
|-------------------|---|
| Capacity:         | 2 x 1500 m <sup>3</sup> /hr = 3000 m <sup>3</sup> /hr   |
| Monitors:         | 2 x 1200 m <sup>3</sup> /hr, Kvaerner, each fitted on wheelhouse top and remotely controlled from within the wheelhouse |
| Throw Length:     | 120 m   |
| Throw Height:     | 50 m  |
| Drenching System: | Installed   |
| Foam Tank :       | 1.8 m <sup>3</sup>  |

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### Standby Rescue Equipment

1. 1 x Maritime Partner MP660 Springer, 10 persons, SOLAS approved FRB with inboard diesel waterjet propulsion.
2. Rescue Zones on both Port and Starboard side of main deck, with scramble nets and personnel transfer swing ropes

### Anti-Pollution

|                  |                            |
|------------------|----------------------------|
| Dispersant Tank: | 9.64 m <sup>3</sup>        |
| Spray Nozzles:   | Twin nozzles port and stbd |

### Accommodation

|         |  |
|---------|--|
| Berths: | 8 x single cabins<br>4 x 4 man cabins<br>1 x Library<br>1 x Messroom<br>1 x Lounge<br>2 x 4 man cabins (including hospital, not for ship crew) |
|---------|--|

### Environmental Features

1. Mud tank of free flowing design with external stiffening, sloped floors and dedicated recirculation.
2. Low residue design bulk tanks.
3. 1 x oily water separator with 15 ppm monitor. Compliant with IMO - Resolution MEPC 107(49).
4. 1 x sewage treatment plant.
5. Galley macerator.
6. Cargo load/discharge station with save all to inboard tank.

### Miscellaneous

1. Design complies to latest rules and regulations from SOLAS 74, with amendments in force and IMO 469 (XII) "Guidelines for the design and construction of offshore supply vessel".
2. All cargo systems are controlled by a Terasaki cargo control system with remote valve operation and tank soundings.
3. Fitted with 2 x Halogen searchlights, each 2000W, fitted on the wheelhouse top and remotely controlled from inside the wheelhouse.
4. Fitted with 6 x 1000W high pressure sodium lights for the aft deck cargo area and 2 x 1000W high pressure sodium lights in the crash rails to illuminate Anchor Handling area.
5. Removable section of crash rail, 6 m long, on Port and Starboard side forward to allow for fitting of ROV spread, etc.
6. Wood sheathed main deck except for the aft area, which is steel plated for Anchor Handling.
7. Welding and cutting equipment and lathe in workshop.

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8. Fresh water ultra violet sterilizer.
9. Flume passive roll damping system.
10. Fire detection system fitted to the accommodation, all store rooms and machinery spaces throughout the vessel.
11. CO2 fixed fire extinguishing system for Machinery Space, Emergency Generator Room, Paint Locker and Hydraulic Pump Room.
12. Local water spray Fire Fighting system according to SOLAS regulations.
13. Statutory liferafts, life-jackets and pyrotechnics.
14. Deck power supplies for ROV equipment / Charterer's equipment:
  - 2 x 500A, 440V, 3ph
  - 1 x 63A, 440V, 3ph
  - 1 x 32A, 440V, 3ph
15. Deck power supplies for Refrigerated containers:
  - 6 x 440V, 63A, 3ph
16. N2 generator m3 per hour: 2 x 94 Sm3 @ 95% N2
17. 1 x Unitor Fixed Foam Fire Fighting System: 7 Bar FJM-80 Monitors, 3000 ltrs / min with AFFF/AR 3% Foam